OF THE  
BIOLOGICAL SOCIETY OF WASHINGTONA NEW SUBSPECIES OF COTTON RAT, *SIGMODON*  
*HISPIDUS*, FROM MICHOACÁN, MÉXICO

BY E. RAYMOND HALL

Among mammals collected in the vicinity of Zamora, Michoacán, in 1943, only one individual of the genus *Sigmodon* was included. That cotton rat differed so much from any named kind that a manuscript description, including a new name, was drawn up for the animal, but being reluctant to propose a new name on the basis of only one specimen, I laid the description aside. In December past, on a visit to the Biological Surveys Collection in the United States National Museum a second specimen, from Zamora, was found. In as much as the second specimen agrees with the first and since each of the two differs from any previously described kind the following account is offered as contributing to our knowledge of this group of rodents of Austral and Tropical distribution.

*Sigmodon hispidus atratus* new subspecies

*Type*.—Male, subadult, skin and skull; no. 100628, Mus. Vert. Zool.; 6½ mi. W Zamora, 5950 ft., Michoacán, México; March 27, 1943; obtained by E. R. Hall, original no. 6009.

*Range*.—Known only from Zamora and the type locality.

*Diagnosis*.—Size medium (see measurements); hind foot short; color blackish yellow on upper parts and sides; whitish on underparts, feet, and under side of tail; tail blackish above and haired densely enough to obscure the annulations; skull (see figs. 1-3) deep; anterior projection of maxillary arm of zygoma short and straight; anterior palatine foramina constricted posteriorly.

*Comparisons*.—From *Sigmodon hispidus mascotensis* Allen as known by specimens of equal age from Pátzcuaro and Tacámbaro, *S. h. atratus* differs in hind foot shorter; upper parts darker (more nearly black); tail more densely haired; skull shorter and more convex in dorsal longitudinal outline; anterior palatine foramina posteriorly constricted rather than parallel-sided; anterior process of maxillary arm of zygoma shorter and less decurved (less of a hook). The same differences are apparent in comparisons with other specimens of *S. h. mascotensis* from the state of Jalisco, more exactly from Tuxpan, Las Canoas and Artenkiki.

*Remarks*.—The short hind foot, the relatively hairy tail with resultant concealment of the annulations on the tail, and the high degree of convexity of the skull dorsally in the longitudinal axis are points of re-

semblance to the *S. melanotis* group of cotton rats. Nevertheless, the differences between *S. h. atratus* on the one hand and *Sigmodon melanotis* Bailey and *Sigmodon alleni* Bailey on the other hand, are of such a nature that I judge the newly named animal to bear no close relationship to *S. melanotis* and *S. alleni*. From them, *S. h. atratus* differs in more grayish and less reddish upper parts, and longer (but no more decurved) anterior process of the maxillary arm of the zygoma. In these two respects the newly named animal shows greater resemblance to *Sigmodon hispidus*. Furthermore, some specimens of *Sigmodon hispidus mascotensis* from other localities in Michoacán (Queréndaro, 1 specimen; Huacana, 8; Los Reyes, 3; La Salada, 2), like *S. h. atratus*, have a short and straight anterior process on the maxillary arm of the zygoma, and the specimens from Los Reyes are almost as dark as *S. h. atratus*. The above evidence is the basis for regarding the newly named kind of *Sigmodon* first as more closely allied to *Sigmodon hispidus* than to *Sigmodon melanotis* and second as only a subspecies of *Sigmodon hispidus*.

The constriction of the posterior part of the anterior palatine foramina, so well shown in the holotype of *S. h. atratus* and present in lesser degree in the referred specimen from Zamora, appears rarely as an individual variation (unrelated to age or sex), at least in northern populations of *Sigmodon hispidus*. In *S. h. atratus* our knowledge of the constancy of this feature and its taxonomic worth, therefore will remain uncertain until more specimens of *S. h. atratus* are available.

The specimen of *S. h. atratus* from Zamora (♀ no. 120268 U. S. B. S.) is slightly the older of the two but unfortunately has a broken skull. The younger specimen is selected as the holotype because its skull is intact.

Acknowledgment is made to Dr. H. H. T. Jackson and Mr. Stanley P. Young for their courtesy in allowing use of materials in their charge and to Miss Annie M. Alexander and the John Simon Guggenheim Memorial Foundation for assistance with the field work in Michoacán.

*Measurements* (first the type and second no. 120268).—Total length, 228, 245; length of tail, 112, 113; length of hind foot, 30, 33; length of ear from notch, 18, —; weight, 53.2, — grams; basal length, 25.7, —; length of nasals, 11.2, 11.4; zygomatic breadth, 18.0, —; mastoid breadth, 12.8, 13.5; alveolar length of upper molar series, 6.1, 6.1.

*Specimens examined*.—Two, the type and one from Zamora.

*Museum of Natural History, University of Kansas, Lawrence, Kansas.*  
*Transmitted January 2, 1948.*

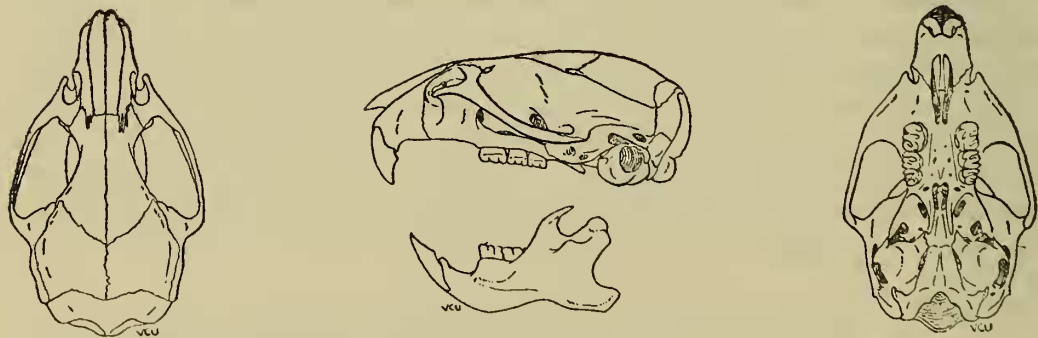


PLATE IX

FIGS. 1-3. Three views of the skull of the type specimen of *Sigmodon hispidus atratus*. X 1.